

Appl. No. 09/641,081
Amdt. Dated December 15, 2004
Reply to Office Action Dated June 15, 2004

REMARKS

Claim 6 has been amended to meet the objections of the Examiner under 35 USC § 112, by replacing "sub-regions" with "sub-region." Other changes to claim 6 are made to clarify the grammatical expression of the claim.

Claim 5 has been amended to clarify that the claim relates to a probe having at least one mismatched base, which is the clear intent of the specification.

Claim 9 has been amended to correct an obvious error in that further limitation of prokaryote properly depends from the claim in which prokaryote is introduced.

The Office Action of June 15, 2004 rejects claims 1-9 on the basis of 35 USC § 103(a) citing Leary et al (WO 99/67422, 29 December 1999) in view of Lockhart et al (US Patent No. 6,040,138, Date of Patent March 21, 2000, filing date: Sept: 15, 1995). This rejection is respectfully traversed.

Applicants respectfully submit that the Lockhart reference is not prior art with respect to the present application pursuant to 35 USC § 103 (c) in that, at the time the invention was made, the subject matter of the Lockhart reference and the present invention were owned by, or subject to an obligation of assignment to, Affymetrix, Inc. of Santa Clara, CA. An assignment of the present application to Affymetrix, Inc. was executed by the inventors on or about August 16, 2000 and is recorded at

Reel 011008, Frame 0347. The Examiner properly notes on page 4 of the Office Action that Leary et al do not explicitly recite a threshold for the hybridization signal of a region, above which threshold value, the region would be considered transcribed. Applicants respectfully submit that, in the absence of Lockhart as a prior art reference, the Applicants' use of such a threshold in claim 1 is novel and nonobvious.

Additionally, Applicants respectfully submit that claim 4 is allowable whether or not Lockhart is considered a prior art reference. Lockhart states that a threshold signal value may be selected below which a signal is not counted as being essentially indistinguishable from background (col. 23, lines 62-67), and proceeds to define the threshold signal in terms of a fraction of background (e.g., 10% above background in col. 24, lines 4-6). Lockhart includes in "background" numerous effects (col. 7, lines 40-61) including, intrinsic fluorescence and the average hybridization signal for: a) the lowest 5% to 10% of the probes in the array; b) the lowest 5% to 10% of the probes for each gene; c) hybridization to probes that are not complimentary to any sequence found in the sample; and d) regions of the array that lack any probes at all. Applicants respectfully submit that the prior art lacks motivation for selecting one of the many factors enumerated by Lockhart, and then for combining that one factor with the reference of Leary. Absent explicit motivation in the prior art, Applicants respectfully submit that claim 4 is allowable.

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In view of the above arguments and amendments,
Applicants respectfully submit that claims 1-9 are
allowable.

If, however, the Examiner believes that any
unresolved issues still exist in any of these claims, the
Examiner should telephone Mr. George Wolken, Jr., Esq.
at (408) 567-0340 so that the issues can be resolved as
expeditiously as possible.

Respectfully submitted,

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